AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0006	08-Mar-2004		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USACE SACRAMENTO DISTRICT ATTN: CONTRACTING DIVISION 1325 J STREET SACRAMENTO CA 95814-2922	W91238	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W91238-04-R-0001
	X	9B. DATED (SEE ITEM 11) 05-Feb-2004
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

(a) Hazardous and Toxic and Radioactive Waste Investigation and Studies Nationwide, including U.S. Territories.

(b) Purpose: This amendment to the Solicitation incorporates a revised Sample Problem into Section L.

(c) The POC for this amendment is Rachel Rosas at 916/557-7716.

Contractor must acknowledge receipt of this amendment by completely filling out Block 15 (SF30) and returning with your proposal. An alternative method is to indicate receipt of the amendment(s) on Block 14 of the SF33. All other terms and conditions related to this Solicitation remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 08-Mar-2004

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

(End of Summary of Changes)

Sample Technical Problem
For
Environmental Service Contract
Source Selection

Introduction:

This sample project has been created from projects and experience from a variety of USACE sites and is intended to encompass many aspects of the work that may be requested as part of this environmental services contract. Your answers to the problem will be rated and provide important input to the selection process.

Responses to the various questions and scenarios should be concise, well thought out and represent the quality of work expected from your company.

Site Information:

A small arms firing range was constructed in the early 1980s which consisted of an informal firing line, a talus backstop or berm and target hangers (telephone poles with target suspension cables). The site layout is depicted in Figure 1. The range has been used by multiple individuals and agencies, including local sportsmen, local sheriff's and police departments, Department of Defense personnel (National Guard) and other federal agencies. Small arms ammunition ranging from .22 caliber to .50 caliber was reportedly used, although no detailed records were kept. In 1999, the range was closed by the USACE due to suspected lead contamination.

Photo 1 - View of north end of site looking west.

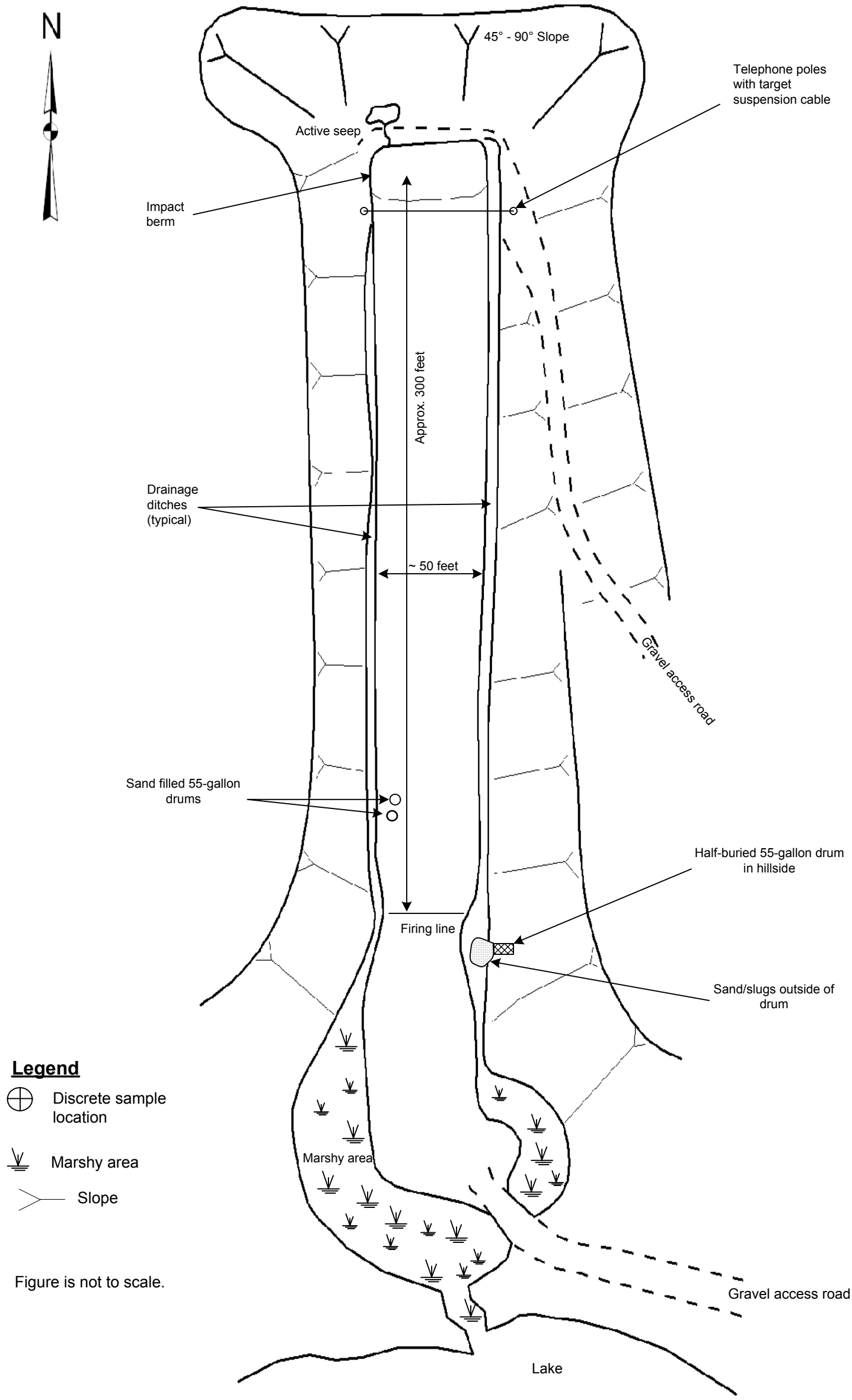
The site is located in Northern California at a Corps of Engineers' operated non-military facility. The nearest large city is approximately 27 miles away. Photos 1 and 2 clearly show that it is situated in a remote area with no residential development. A large lake is in very close proximity to the southern end of the range (firing line area).

Photo 2 - View of range looking north from firing line

A narrow dirt road leads to the site but access is unsafe during the winter months due to mud. The site is approximately 5 miles from the nearest major paved road. A small target access road enters into the canyon at the northern end. The road slopes down into the impact berm area. The southern end of the canyon is also accessible via a dirt road.

Site Dimensions:

The range is approximately 300 feet long from the firing line to the impact berm, 50 feet wide and was constructed in a man-made canyon. The impact berm (backstop) consists



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Version: 2.3

Environmental Services Contract
Sample Problem
Firing Range Site Map
Figure 1

of loose talus. The site is sloped to drain from the impact berm past the firing line on both sides of the canyon out to areas shown on Figure 1. The north end of the canyon slopes anywhere from 45° to 90° while the sidewalls slope from 10° to ~ 30° .

Site Geology:

Although no formal study has been done of the site, visual inspections by USACE staff geologists indicated that the site contained serpentine outcroppings. The impact berm seemed to consist of fine grained, crushed serpentinite (bluish green in color). The rest of the site, including the side slopes and base consisted of a rocky soil. Fine grained sediments were noted in the unlined drainage ditches.

Previous Investigations:

Shortly before the range was closed, the USACE had soil samples taken to ascertain whether lead at the site existed. Only a limited number of samples were taken and they were composited in the laboratory for analysis (See Figure 2 for sample locations). The results were as follows.

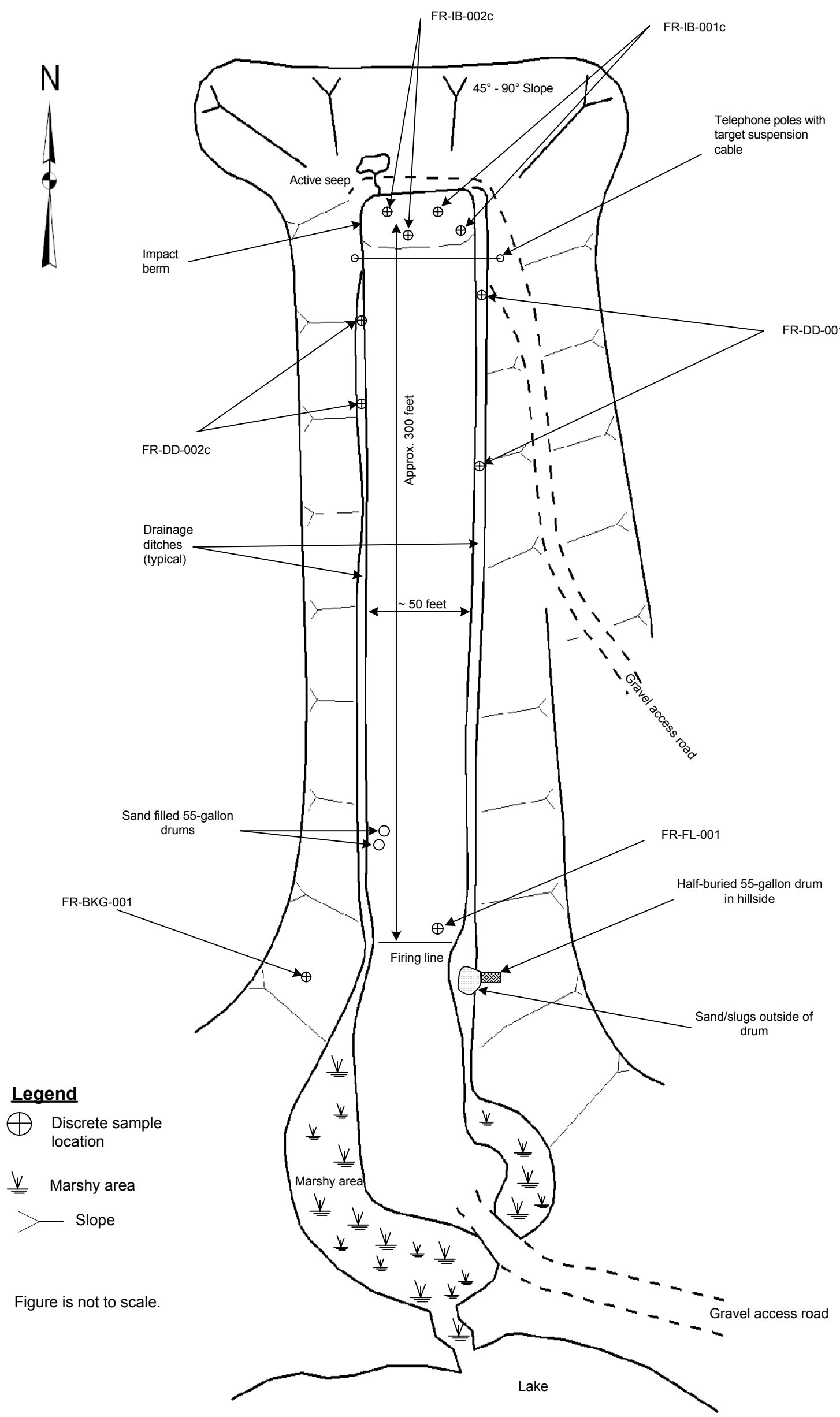
- Four shallow (~ 6" deep) soil samples were taken across the face of the impact berm. The four samples were composited into two samples and analyzed only for lead. According to the sampling team, visible lead slugs and bullet fragments were removed at the time of sample collection.

Sample ID	Total[1] Lead (mg/kg)	"Soluble"[2] Lead (mg/l)
FR-IB-001c	42,250	375
FR-IB-002c	1855	17

- Four surface soil samples were taken from the drainage ditches – two samples from each side, composited into two samples and analyzed for lead.

Sample ID	Total Lead (mg/kg)	"Soluble" Lead (mg/l)
FR-DD-001c	470	64
FR-DD-002c	253	Not Analyzed

[1] All soil samples analyzed via EPA Method 7421
[2] For the "soluble" results, soil samples were processed via a standard California Waste Extraction Test (WET), then analyzed for lead by EPA Method 7421.



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Environmental Services Contract
Sample Problem
Firing Range Sample Locations
Figure 2

- One surface soil sample was taken at the firing line and another was taken up the side of the hill as a “background” sample. Both were analyzed for lead.

Sample ID	Total Lead (mg/kg)	“Soluble” Lead (mg/l)
FR-FL-001	54	Not Analyzed
FR-BKG-001	35	Not Analyzed

Other Site Information:

During a reconnaissance visit in late summer to the site, the following observations were made:

- The west side drainage ditch terminated in a marshy area just south of the firing line (See photo 3).
- The marshy area drains directly into the nearby lake. Evidence of wildlife (paw prints, avian species, frogs, etc.) was noted in and around the marsh.
- The impact berm contained many heavily deformed slugs and bullet fragments.
- The northern reaches of the drainage ditches also contained slugs in various stages of oxidation.

Photo 3 - View of marshy area south of firing line.

- Two 55-gallon drums were found near the firing line and were filled with sand and spent bullets (See Figure 1). The drums were heavily rusted and could not be moved.
- Near the firing line, an open drum filled with sand was also noted (See Figure 1). The drum had been dug into the east slope. Sand in and around the barrel was noted as having spent bullets. It was not readily evident if the barrel had a bottom or not.
- The USACE Ordnance and Explosives (OE) specialist inspected the site for explosive ordnance, but none were found. Since then, the site has been cleared of OE issues.
- Occasional live ammunition (unfired) was found near the impact berm, including two .50 caliber rounds, three .30 caliber rounds and one 410-gage shotgun round.
- The firing line had many spent brass shell casings, which confirmed the range of ammunition fired at the site. In addition, spent shotgun shells were also noted scattered about the area.

- Along the length of the range, broken clay pigeons were found ranging in size from almost intact discs to very small pieces. The firing line also showed evidence of broken clay pigeons, but those had been ground to a finer state by foot traffic.
- An active seep was noted near the northwest corner of the impact berm area (See Figure 1). Water was seeping out of the hillside and into the drainage ditches.

Tasks:

Although the USACE closed the site in 1999 for use as a firing range, the sample results seem to indicate that something more may need to be done. Your company has been contacted by the USACE with the intent of obtaining your services to characterize the range and determine possible cleanup strategies. Preliminary contact with the USACE indicated that a pre-scoping meeting should first take place. The information above (including the site figures) was emailed to your company in preparation for the meeting.

Task 1: *Scoping Meeting*:

In 2 pages or less, outline the following:

a. Who you would propose bringing to this project scoping meeting. Provide the number of people and their positions/title.
b. What disciplines they would have.
c. Briefly explain the reason for each discipline brought.

A successful meeting was held between the USACE PDT and your company and a project scope was developed. The following items were discussed:

- The site has not been fully characterized for lead or other compounds. No one knows the nature and extent of contamination.
- No regulatory agencies have been contacted as of yet and it is not clear to the USACE who should be involved or what regulatory program the project should follow.
- The property on which the range sits will remain under USACE ownership (Federal property) for the foreseeable future. The county's master plan for this area indicates no residential development in the neighboring areas.
- The USACE facility managers did indicate that public access (hiking, jogging, etc.) to the site will remain, but it will no longer be used for as a firing range.
- The USACE PM and facility managers requested that the work be done as quickly and as cost effectively as possible due to potential future budget cuts.
- The State Historic Preservation Office (SHPO) was contacted and has already been to the site. No cultural issues were noted and the site has been cleared for work.

- One of the USACE facility team members mentioned that there were several cinnabar mines located outside of the property line and that one of the abandoned mines drained into the lake.
- In short, the site needs to be put under some regulatory program, investigated and assessed as to the need for cleanup.

You have been asked to perform the following tasks:

Task 2: *Project Organization*:

For the course of the entire project, outline in 3 pages or less:

a. An organizational chart of your managerial and technical team (separately break out the technical staff you propose to use).
b. Show where the USACE PM and USACE technical staff fit and how they will interact with your staff on the organization chart.
c. Show how and where the regulatory agency fits in the project team.
d. Show subcontractors (general category only – drilling, laboratory, etc.) you propose to use.

Task 3: *Determination of regulatory framework*:

In 4 pages or less, based on your experience with projects of this sort, outline the following:

a. The regulatory program you would propose following for this project (e.g. CERCLA, RCRA, TSCA, SUPERFUND, UST, FUDS, RAMS, etc). Briefly explain how and why you came to that decision.
b. The lead agency (Federal, State or local) who would oversee the project. Briefly explain how you came to this conclusion.
c. Any other potential agencies that might need to be included in this project. Briefly explain your reasons for including each agency.
d. For the program which you propose, show all the major stages from project inception to closure.
e. Your proposed list (title only) of deliverable documents up to but not including remediation.

Task 4: *Characterization of nature and extent of contamination at the site*:

Based on your experience at similar sites and given the information to date, in 15 pages or less, outline the following:

a. Your Conceptual Site Model (CSM) for the site.
b. Your conceptual approach to characterizing the nature and extent of the contamination (include your project phases).
c. Your proposed list of compounds of potential concern (COPC). Please use *example* table shown below for the format:

Table 1 - Example Tabular Format for Task 4

Item, Product or Commodity	Media	Proposed COPC	Reason Selected	Proposed Analytical Method(s)
Green crystal found near berm	Solid	Kryptonite	Not native to site. Induces lassitude in certain sensitive individuals.	EPA Method 9999K (Modified)
Lead slugs	Solid	Lead	Not native to site. Toxic to humans and the environment.	EPA Method 7421

d. Your sampling methods and proposed locations and types of samples.
e. Your timeline for completion of the field work (shown as a Gannt chart).
f. A work breakdown structure and note areas where your proposed approach saves time and/or money.

Task 5: *Assessing potential cleanup criteria*:

Assume that your investigation revealed high levels of lead, chromium, barium, nickel, zinc and copper. Based on your experience with environmental work at similar sites and given the information to date, in 8 pages or less, outline the following:

a. Based on the list of what was found above, is this consistent with the site history, visual observations at the site *and* your Conceptual Site Model?
b. The regulatory criteria you propose to use in determining potential cleanup goals for your list of COPCs.
c. The numerical criteria against which you propose to compare your sample results and how you would develop the criteria.
d. The exposure scenario(s) you would propose for the site.
e. Issues, if any, relating to ambient or background concentrations of COPCs, how you might handle them and their role in deriving cleanup goals.

Task 6: *Remedial Design:*

For the purposes of this sample problem, assume that your site investigation indicates levels of lead in soil above the cleanup criteria the USACE and regulatory agencies have negotiated. Many of the fine grained soil samples also failed the Soluble Threshold Leaching Concentration (STLC) values for lead. You calculations indicate approximately 6,000 cubic yards of soil need to be remediated. Based on your experience with environmental work at similar sites and given the information to date, in 8 pages or less, outline the following:

a. 3 possible remedial options you might propose for this site.
b. For each remedial option proposed in a. above, explain what additional data you propose collecting or obtaining in order to assess its suitability for use for this site.
c. For each remedial option proposed in a. above, explain the range (in mg/kg) of lead concentrations in soil it can handle and the range (in mg/kg) of potential cleanup values it might be able to achieve.
d. For each remedial option proposed in a. above, explain the benefits and drawbacks you see for use at this site.
e. What remedial design ideas would you propose to save the USACE time and money during remediation?

General Notes:

As with many Hazardous, Toxic and Radioactive Waste (HTRW) sites in the USACE inventory, not all the information currently available for the site is present, useful or even consistent. If assumptions are used in answering the tasks above, they must be clearly stated and justified. *Do not make up new analytical data.*